

CLAIMS

1. A measuring device comprising:
 - a level adjusting means that receives an output signal output from a device under test, adjusts a level of the output signal, and outputs the resulting output signal;
 - a characteristic measuring means that receives the output signal output from said level adjusting means, and measures a characteristic of the device under test; and
 - a level setting means that sets a degree of an adjustment of the level of the output signal by said level adjusting means so that a measurement error is minimum upon the measurement.
2. The measuring device according to claim 1, wherein the measurement error is caused by said characteristic measuring means, and changes according to the level of the output signal supplied to said characteristic measuring means.
3. The measuring device according to claim 1 or 2, comprising a measurement error calculating means that calculates the measurement error based on a signal purity, a distortion that increases the measurement error as the level of the output signal increases, and a noise that decreases the measurement error as the level of the output signal increases.
4. The measuring device according to claim 3, wherein the distortion is determined based on the IP3 of the measuring device.

5. The measuring device according to claim 3, wherein the noise is determined based on a noise level determined based on a frequency of the signal measured by said characteristic measuring means.
6. The measuring device according to claim 3, wherein the noise is determined based on a modulation bandwidth of the output signal.
7. The measuring device according to claim 3, wherein the signal purity is determined based on a modulation bandwidth of the output signal.
8. The measuring device according to any one of claims 1 to 7, wherein said level setting means discretely sets the degree of the adjustment of the level of the output signal such that said level adjusting means can adjust the level of the output signal such that the measurement error is minimum within a range equal to or lower than the level of the output signal which minimizes the measurement error.
9. The measuring device according to any one of claims 1 to 7, wherein:
said characteristic measuring means comprises a digital processing means which carries out digital processing; and
said level setting means sets the degree of the adjustment of the level of the output signal such that said level adjusting means can adjust the level of the output signal such that the measurement error is minimum in a range which can be processed by the digital processing means.
10. A measuring method comprising:
a level adjusting step of receiving an output signal output from a

device under test, adjusting a level of the output signal, and outputting the resulting output signal;

a characteristic measuring step of receiving the output signal output from said level adjusting step, and measuring a characteristic of the device under test; and

a level setting step of setting a degree of an adjustment of the level of the output signal by said level adjusting step so that a measurement error is minimum upon the measurement.

11. A program of instructions for execution by the computer to perform a process of a measuring device having: a level adjusting means that receives an output signal output from a device under test, adjusts a level of the output signal, and outputs the resulting output signal; and a characteristic measuring means that receives the output signal output from said level adjusting means, and measures a characteristic of the device under test; said process comprising:

a level setting step of setting a degree of an adjustment of the level of the output signal by said level adjusting step so that a measurement error is minimum upon the measurement.

12. A computer-readable medium having a program of instructions for execution by the computer to perform a process of a measuring device having: a level adjusting means that receives an output signal output from a device under test, adjusts a level of the output signal, and outputs the resulting output signal; and a characteristic measuring means that receives the output signal output from said level adjusting means, and measures a characteristic of the device under test; said process comprising:

a level setting step of setting a degree of an adjustment of the level of the output signal by said level adjusting step so that a measurement error is minimum upon the measurement.